



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,350	07/30/2001	Ralph R. Sawtell	00-1684	7564

8840 7590 08/27/2002

ALCOA INC  
ALCOA TECHNICAL CENTER  
100 TECHNICAL DRIVE  
ALCOA CENTER, PA 15069-0001

EXAMINER
----------

COMBS, JANELL A

ART UNIT	PAPER NUMBER
----------	--------------

1742

5

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,350

Applicant(s)

SAWTELL ET AL.

Examiner

Janelle Combs-Morillo

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11, 19, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11, 19, and 26 mention “improved fracture toughness performance as compared to its 2014 counterpart”, which renders the claim indefinite. It is unclear the exact minimum or range of fracture toughness referred to. Please clarify.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by “Metals Handbook: Desk Edition” pp 426-427, 449-450.

“Metals Handbook: Desk Edition” teaches that alloy 2214 entirely overlaps the instant alloy composition. See Table below for overlapping alloying ranges. “Metals Handbook: Desk Edition” at Table 1 footnote g) teaches that said alloy can be extruded or forged.

Art Unit: 1742

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
AA 2214	0.5-1.2	0.3 max.	3.9-5.0	0.40-1.2	0.20-0.8	0.10 max.	0.25 max.		
present invention (claim 1)	0.65-0.9	0.15 max.	4.0-4.7	0.6-0.9	0.35-0.55				
claim 2	one or more of Cr, Zn, Ti, Be in the following ranges-					0.1 max.	0.25 max.	0.15 max.	0.001 max.
claim 3	0.7-0.85								
claim 4			4.1-4.5						
claim 5				0.65-0.85					
claim 6		0.14 max.							

Concerning claim 11, the examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, if the prior art teaches the identical chemical structure, the property applicant discloses and/or claims (such as fracture toughness) is necessarily present.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1742

6. Claims 8-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Metals Handbook: Desk Edition” pp 426-427, 449-450 alone or in view of Karabin (US 5,879,475 A).

As stated above, AA2214 overlaps the presently claimed composition ranges. “Metals Handbook: Desk Edition” does not teach that said alloy is suitable for vehicle wheels (instant claim 8), aerospace wheels (instant claim 9, 12-19), aerospace brake components (instant claim 10, 20-27). However, “Metals Handbook: Desk Edition” does teach that said alloy can be forged (Table 1 footnote g). Additionally, “Metals Handbook: Desk Edition” teaches that 2xxx series alloys in general are often forged, and that AA2014 is commonly used in the aerospace industry. It would have been within the level of one of ordinary skill in the art to use 2214 as a forged component suitable for vehicle wheels, aerospace wheels, aerospace brake components, because 2214 is a known variant of 2014 (but with lower Fe impurity).

Alternatively, Karabin teaches that substantially similar Al-Cu-Mg-Mn alloys are typically forged into structural components including aircraft wheels and various brake components (abstract). It would have been obvious to one of ordinary skill in the art to use the 2214 alloy taught by “Metals Handbook: Desk Edition” for forged aircraft wheels and various brake components because Karabin teaches that it is conventional to use similar 2xxx series alloys for said applications.

Concerning claims 11, 19, and 26, as stated above, the examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ

Art Unit: 1742


430, 433 (CCPA 1977). Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims (such as fracture toughness) are necessarily present.

### *Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs- Morillo whose telephone number is (703) 308-4757. The examiner can normally be reached Monday through Friday from 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (703) 308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
GEORGE WYSZOMIERSKI  
PRIMARY EXAMINER

jcm 

August 21, 2002